

## Safe Work Instruction - Fault Finding on Low Voltage Electrical Equipment

**DO NOT use this plant\* or complete this task unless you have been inducted in its safe use and operation by an Authorised Experienced Operator**

This SWI may not cover all possible hazards and risks and should be referred to as a control measure in the risk assessment process.  
Additional training may be required for high risk plant. Site and task may change required PPE.

### PERSONAL PROTECTIVE EQUIPMENT



Eye protection must be worn



Hand protection must be worn



Protective body clothing must be worn



Foot protection must be worn



Safety harness must be worn



P2 face mask must be worn when airborne dust or fumes are created

### POTENTIAL HAZARDS AND RISKS

- Manual Task Injury**  
Manual task injury from repetitive movements  
Manual task injury from incorrect manual handling techniques
- Electrical Shock or Burn**  
Electrical shock or burn from damaged or poorly maintained electrical leads and cables  
Electrical shock or burn from plant contact with live electrical conductors  
Electrical shock or burn from water near electrical equipment
- Slip, Trips, Falls**  
Slip, trip, fall due to uneven or slippery work surfaces  
Slip, trip, fall due to steep working surfaces
- Other**  
Injury due to fall from heights  
Exposure to asbestos  
Injury due to operating of plant in unsuitable weather conditions  
Injury due to plant malfunction or misuse

### PRE-OPERATIONAL SAFETY CHECKS

**NOTE: Working on Live Electrical Equipment is unacceptable unless written authorisation is given by Council. This authorisation can only be given if a risk assessment indicates that the risk of isolating is greater than the risk of working live. Work carried out by trained and authorised persons under the Department of Energy, Utilities and sustainability, Authorised Contractor system is exempt from this Clause and covered other SWMS**

### PRE OPERATIONAL PROCEDURES

**To be completed before going on site:**

- ✓ Notify all occupants of your intended actions and expected duration
- ✓ Complete site specific risk assessment, the need for a standby person to be present while conducting this fault finding process safely **must** be addressed on the risk assessment
- ✓ Complete the appropriate pre-operational plant checklist
- ✓ Ensure you are familiar with plant operations and controls
- ✓ Ensure that guards are fitted, secured and functional in accordance with manufacturers guidelines
- ✓ Ensure all equipment to be used has been tagged and tested for construction sites
- ✓ Notify site controller/tenant of intended work, outage and schedule appropriate time

- ✓ Ensure that appropriate test equipment is operational and necessary tools are available and well maintained
- ✓ If task requires working at height or depth of 2 meters or more, refer to Working at Heights Procedure P13, Complete a Working at Heights Risk Assessment Checklist, refer to SWI36 - Ladders Use and Maintenance
- ✓ Refer to Confined Space Procedure P16, Complete Confined Space Risk Assessment Checklist, obtain a Confined Space Permit

### OPERATING PROCEDURES

- ✓ Notify all occupants of your intended actions and expected durations of any outages
- ✓ Keep clear of moving plant parts
- ✓ Operate plant to the conditions of the work area
- ✓ Consult operators to ascertain operating procedures and processes of the equipment to be worked on
- ✓ Consult circuit drawings and operational manuals. Note particularly multiple supplies to equipment/panels to be worked on. (Notify relevant workers if manuals/drawings are not available)
- ✓ Develop a plan for finding the fault which addresses all the hazards and control measures as outlined in site specific checklist
- ✓ Isolate electrical and mechanical equipment where appropriate, complying with Energy Isolation Procedure P29

**NOTE: Ensure capacitors have been discharged and check for induced voltages and voltages which may be present on neutrals/earths and disconnected activities from back feeds**

- ✓ Separate live parts from personnel by using barricades or insulating mats
- ✓ Carry out fault finding as per the plan developed
- ✓ At completion of fault finding process notify relevant parties that work is completed and that isolations are to be removed
- ✓ Remove energy isolations, complying with Energy Isolation Procedure P29

### **ENDING OPERATIONS**

- ✓ Ensure area is clean and clear of rubbish
- ✓ Ensure all safety guards and covers are replaced
- ✓ If equipment has been repaired and is ready for normal operation, it may be returned to surface
- ✓ Ensure all workers involved are safely away from equipment that is being reenergised and all moving parts
- ✓ Each worker to remove their own Personal Danger Tag.
- ✓ If equipment is not ready for normal service, inform the relevant operation staff that the equipment is to be left out of service and apply the appropriate tag/s
- ✓ Once all Danger Tags have been removed, return equipment to service if it has been repaired and is ready for normal operation

### **DO NOT**

- ✗ Do not use if plant is faulty. Attach an Out of Service tag and report fault to your supervisor
- ✗ Do not leave plant running unattended
- ✗ Do not leave keys in machinery whilst unattended
- ✗ Do not wear loose jewellery
- ✗ Do not use mobile phone while operating plant

**\*Plant in this SWI refers to any machinery, equipment, appliance, container, implement and tool.**